

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

NEW TARDIGRADA FROM WESTERN NORTH
AMERICA: II, *ECHINISCUS*

BY ROBERT O. SCHUSTER AND ALBERT A. GRIGARICK
University of California, Davis

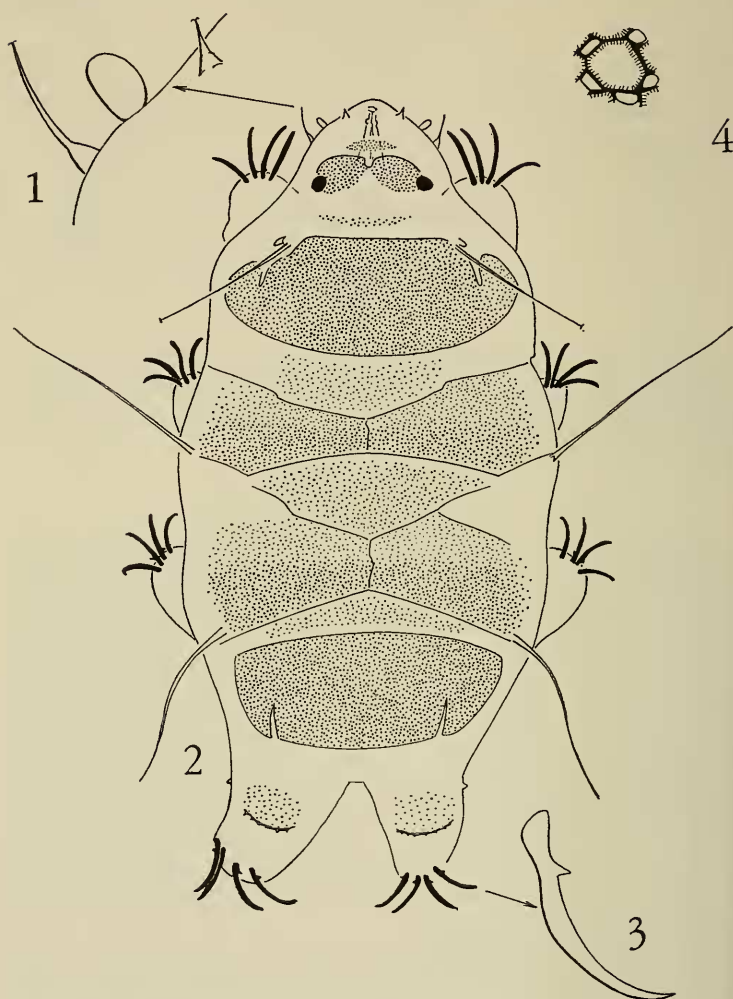
This large, distinctive species¹ of *Echiniscus* was collected in the Riverside Mountains of southern California. It is the only undescribed species of *Echiniscus*, outside of the *arctomys* group, thus far found in California.

***Echiniscus becki*, new species**

Holotype: Length excluding legs IV 400μ ; width 170μ . Eye spots present, dark red. Cuticle of dorsal plates consisting of solid polygons tenuously interconnected, each polygon with 4, 5 or 6 bordering pores (Fig. 4); anterior halves of 1st and 2nd plate pairs, and anterior half of 2nd intersegmental plate lacking pores, the polygons not interconnected. Leg plates very faint, most obvious on legs IV. Head plate essentially divided into 2 distinct halves, transverse anterior and posterior platelets extremely faint. Intersegmental plates not transversely divided although cuticular pattern of the 2nd differs between anterior and posterior. Internal and external buccal cirri appear distally bifurcate (Fig. 1). Spine A expanded at tip. Spines C (115μ), and D (100μ) smooth, acuminate. End plate without lateral spine or spicule. Dentate collars of legs IV with 8 and 14 teeth. Legs I and IV with basal papillae. Internal claws of legs I-III simple, leg IV with apically directed spur (Fig. 3).

The holotype and 53 paratypes are from the Mountaineer Mine, Riverside Mountains, south of Vidal Junction, Riverside County, California, 25 January 1965, A. J. Beck and R. O. Schuster. The specimens were recovered by Baermann funnel extraction of sparsely occurring mosses and lichen from crevices in rocks. The type series is deposited in the Department of Entomology, Davis, except for four paratypes sent to Dr. Ramazzotti, Milano, Italy.

The shortest individual is 290μ , the longest 420μ , with most of the specimens in the series between 350μ and 380μ . The internal buccal cirrus and papilla are about 6μ or 7μ , and the external cirrus 17μ . The buccal cirri and spine A appear to be bifurcate, or perhaps ending in a small disc. A median longitudinal stripe and 2 transverse stripes



FIGS. 1-4. *Echiniscus becki*, new species, holotype. 1. Detail of buccal cirri and papilla, 2. Dorsal aspect, 3. External claw of leg IV, 4. Cuticular polygon and bordering pores.

are present on the scapular plate, barely visible with phase contrast when out of phase.

The solid appearance of the cuticular polygons is not typical of the species group *blumi-canadensis*. In the *trisetosus* group the space between pores is not defined as regular polygons. Dr. Ramazzotti has

suggested that for "practical purposes" this species might be placed with the *trisetosus* group although the grouping is an artificial one. It does not key to any species in Ramazzotti (1962) or in the revised key to *Echiniscus* (Ramazzotti, in press).

This species is named for Dr. Albert J. Beck in appreciation of his conducted tour of old mines during which the collection was made.

LITERATURE CITED

- RAMAZZOTTI, G. 1962. II Phylum Tardigrada. Mem. Ist. ital. Idrobiol., 14: 1-595.